

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Olsen *et al.*

Appl. No. *To be assigned*
(Divisional of U.S. Appl. No. 08/994,962;
Filed: December 19, 1997)

Filed: *Herewith*

For: **Human Oncogene Induced
Secreted Protein I**

Art Unit: *To be assigned*

Examiner: *To be assigned*

Atty. Docket: 1488.0440003/EKS/PSC

Batch No. **To be assigned**

Letter to PTO Draftsman: Submission of Formal Drawings

Commissioner for Patents
Washington, D.C. 20231

Sir:

Submitted herewith are four (4) sheets of formal drawings with Figures 1A, 1B, 2 and 3, corresponding to the informal drawings submitted with the above-captioned application. Identification of the drawings is provided in accordance with 37 C.F.R. § 1.84(c). Acknowledgment of the receipt, approval, and entry of these formal drawings into this application is respectfully requested.

It is not believed that an extension of time is required, other than any already provided herewith. However, if an extension of time is needed to prevent abandonment of the application, then such extension of time is hereby petitioned. The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036. A duplicate copy of this Letter is enclosed.

Respectfully submitted,

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Assignee: Human Genome Sciences, Inc.

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CLASS	SUBCLASS
1	1

TCCCATACAGGCCCCCACCATGAAGGGTTTCACAGCCACTCTCTTCTCTGGACTCTGAT
 MetLysGlyPheThrAlaThrLeuPheLeuTrpThrLeuI
 M K G F T A T L F L W T L I
 TTTTCCCAGCTGCAGTGAGGCGGCGGTGGGAAAGCCTGGCCACACACGTGGTCTGTAG
 ePheProSerCysSerGlyGlyGlyGlyGlyLysAlaTrpProThrHisValValCysSe
 F P S C S G G G G G K A W P T H V V C S
 CGACAGCGGCTTGAAGTGCTCTACCAGAGTTGCGATCCATTACAAGATTTTGGCTTTTC
 rAspSerGlyLeuGluValLeuTyrGlnSerCysAspProLeuGlnAspPheGlyPheSe
 D S G L E V L Y Q S C D P L Q D F G F S
 TGTGAAAAGTGTCCAAGCAATTAATCAATATCAACATTAGATTTGGAATTATTCT
 rValGluLysCysSerLysGlnLeuLysSerAsnIleAsnIleArgPheGlyIleIleLe
 V E K C S K Q L K S N I R F G I I L
 GAGAGAGGACATCAAAGAGCTTTTTCTTGACCTAGCTCTCATGTCTCAAGGCTCATCTGT
 uArgGluAspIleLysGluLeuPheLeuAspLeuAlaLeuMetSerGlnGlySerSerVa
 R E D I K E L F L D L A L M S Q G S S V
 TTTGAATTTCTCCTATCCCATCTGTGAGGCGGCTCTGCCAAGTTTTCTTGTGGAAG
 lLeuAsnPheSerTyrProIleCysGluAlaAlaLeuProLysPheSerPheCysGlyAr
 L N F S Y P I C E A A L P K F S F C G R
 AAGGAAAGGAGAGCAGATTTACTATGCTGGGCTGTCAATAATCCTGAATTTACTATTCC
 gArgLysGlyGluGlnIleTyrTyrAlaGlyProValAsnAsnProGluPheThrIlePr
 R K G E Q I Y Y A G P V N N P E F T I P
 TCAGGGAGAATACCAGGTTTTGCTGGAAGTGTACACTGAAAAACGGTCCACCGTGGCCTG
 oGlnGlyGluTyrGlnValLeuLeuGluLeuTyrThrGluLysArgSerThrValAlaCy
 Q G E Y Q V L L E L Y T E K R S T V A C
 TGCCAATGCTACTATCATGTGCTCCTGACTGTGGCCTGTAGCAAAAATCAGCCAGCTG
 sAlaAsnAlaThrIleMetCysSerEnd
 A N A T I M C S *
 CATCTCGTGGGACCTCCAAGCTCCTCTGACTGAACCTACTGTGGGAGGAGAAGCAGCTGA

FIG. 1A

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601  TGACAGAGAGAGGCTCTACAAAGAAGCGCCCCAAAGAGTGCAGCTGCTAATTTTAGTCC
-----+-----+-----+-----+-----+-----+
661  CAGGACCAGACATCCCCAGACTCCACAGATGTAATGAAGTCCCCGAATGTATCTGTTTCT
-----+-----+-----+-----+-----+-----+
721  AAGGAGCCTCTTGGCAGTCCTTAAGCAGTCTTGAGGGTCCATCCTTTTTCTCTAATTGGT
-----+-----+-----+-----+-----+-----+
781  CGCCTCCCACCAGACTCACCTGCTTTTCAACTTTTTAGGAGTGCTTCCTCACAGTTACCA
-----+-----+-----+-----+-----+-----+
841  AGAAATAAAGAAAGCTGGCC
-----+-----+ 860
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Nucleotide sequence of Human MD-1 Homolog. Corresponding deduced amino-acid sequence shown below using standard three and one letter abbreviation.

FIG.1B

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Score = 344 (160.0 bits). Expect = 6.6e-44. P = 6.6e-44
 Identities = 60/133 (45%). Positives = 86/133 (64%)

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Query:   27 WPTHVVCSDSGLEVLYQSCDPLQDFGFSVEKCSKQLKSNINIRFGIILREDIHELFLDLA  86
          WPTH VC + LE+ Y+SCDP QDF FS+++CS          +IR ++LR+ IHEL+ +
Sbjct:   22 WPTHVVCKEENLEIYYKSCDPQQDFAFSIDRCSDVTTHTFDIRAAMVLRQSIKELYAKVD  81

Query:   87 LMSQGSSVLNFSYPICEAALPKFSFCGRRKGEQIYYAGPVNNPEFTIPQGEYQVLLKLYT  146
          L+ G +VL++S +C L K FCG++KGE +YY GP+      IPQG+Y + L
Sbjct:   62 LIINGKTVLSYSETLCGPGLSFLIFCGKKKGEHLYYEGPITLGIKEIPQGDYTITARLTN  141

Query:   147 EKRSTVACANATI  159
          E R+TVACA+ T+
Sbjct:   142 EDRATVACADFTV  154
  
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Sequence comparison between human MD-1 protein (upper line) and MD-1 protein from chicken (lower line).

FIG.2

Appl. No. To be assigned; Group Art Unit: To be assigned
 Pkt. No. 1488.0440003/EKS/PSC;
 Inventors: Olsen *et al.*; Tel: 202/371-2600
 Title: Human Oncogene Induced Secreted Protein I

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ANTIGENIC REGIONS

Ser17-Thr29
 Cys33-Glu39
 Gln43-Gly52
 Glu56-Asn67
 Leu74-Leu83
 Gln90-val94
 Ser110-Ile120
 Pro125-Gln139
 Tyr145-Val152

- ALPHA, REGIONS-GARNIER-ROBSON
- ALPHA, REGIONS-CHOU-FASMAN
- BETA, REGIONS-GARNIER-ROBSON
- BETA, REGIONS-CHOU-FASMAN
- TURN, REGIONS-GARNIER-ROBSON
- TURN, REGIONS-CHOU-FASMAN
- COIL, REGIONS-GARNIER-ROBSON

□ HYDROPHILICITY PLOT-KYTE-DOOLITTLE

- ALPHA, AMPHIPATHIC REGIONS-EISENBERG
- BETA, AMPHIPATHIC REGIONS-EISENBERG
- FLEXIBLE REGIONS-KARPLUS-SCHULZ

▨ ANTIGENIC INDEX-JAMESON-WOLF

▨ SURFACE PROBABILITY PLOT-EMINI

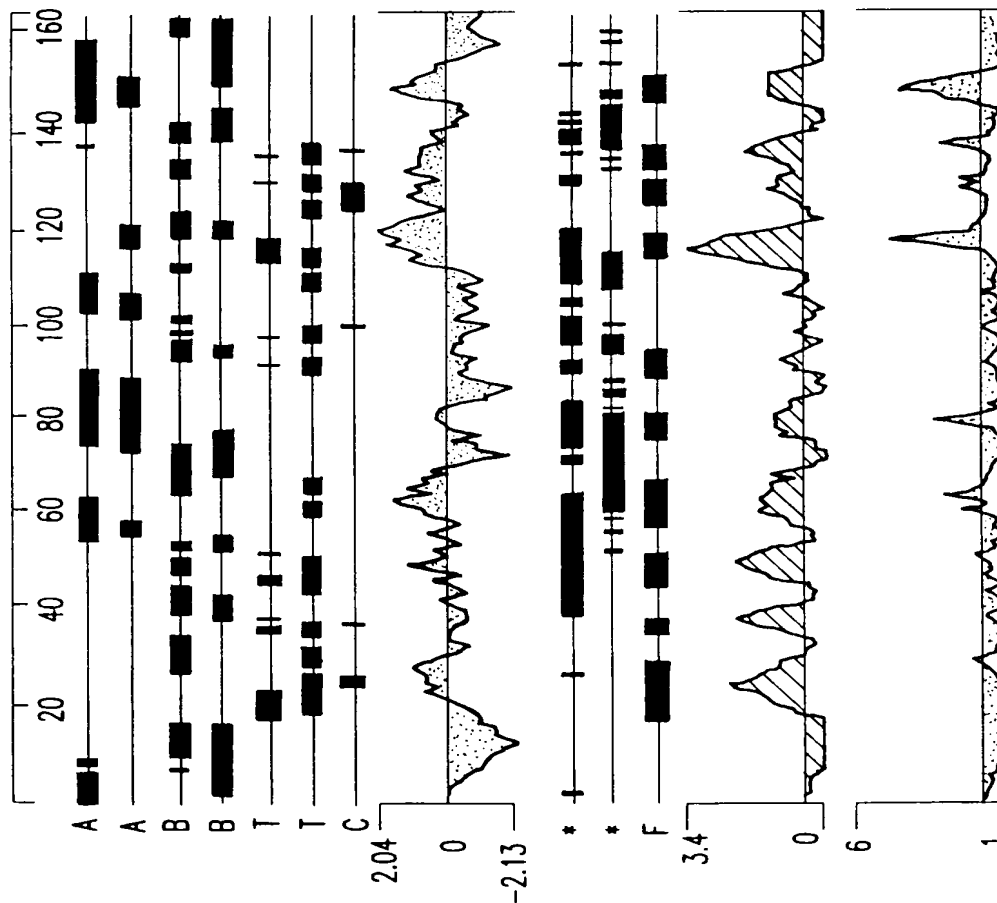


FIG.3